

1 **ABSTRACT**

2 A correlation system receives multiple events and multiple data elements.
3 The multiple events and data elements are applied to a correlation function which
4 is implemented as a state machine. A specific event is generated if the correlation
5 function is satisfied by the multiple events and the multiple data elements.
6 Additional events and data elements are received if the correlation function is not
7 satisfied by the original events and data elements. The system allows for the
8 identification of a schema for creating state machines that correlate events and/or
9 data. An instance of a particular state machine is created and transitions for the
10 particular state machine are defined by subscribing to one or more events. An
11 update consumer is applied to the particular state machine to update the state of
12 the particular state machine.